

**DRAFT SCREENING SITE INVESTIGATION
FOR THE
METALLURGICAL PRODUCTS PROPERTY
35TH STREET AND MOORE STREET
PHILADELPHIA, PENNSYLVANIA
ECKEL SITE NUMBER 312**

Prepared for

U.S. Environmental Protection Agency Region 3
Hazardous Site Cleanup Division
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Remedial Action Contract No. 68-S7-3002
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Project No. I4185.47502.0903

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1.0 INTRODUCTION

Under Remedial Action Contract (RAC) No. 68-S7-3002, Work Assignment No. 048-PAPA-03ZZ, U.S. Environmental Protection Agency (EPA) Region 3 tasked Tetra Tech, Inc. (Tt), to assist EPA Region 3 in the assessment of properties suspected to have been former lead smelter foundries. Tt subcontracted completion of this work assignment to Tetra Tech EM Inc. (Tetra Tech).

Former lead smelter sites nationwide were identified in an April 2001 article published in the American Journal of Public Health by Eckel, and others (Eckel study) (Reference [Ref.] 1). The majority of these lead smelters operated prior to 1964 and closed before the current environmental regulations were instituted. As part of the Eckel study, soil samples were collected from several of the identified former lead smelter properties. Results from the analysis of these soil samples indicated that concentrations of lead exceeded EPA's recommended screening level for lead in residential soils. The results of the Eckel study indicate that the air disposition of lead into soils from the former smelter operations may present an ongoing public health concern due to exposure of residential populations, especially children, located in the vicinity of these former lead smelters, to soils containing elevated concentrations of lead (Refs. 1, 2, and 3).

The Eckel study identified 77 properties that may have been formerly used as lead smelters within EPA Region 3 (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia). EPA Region 3 is currently investigating these 77 properties. The objective of EPA's investigation of these properties is to (1) determine the potential for lead-contaminated soil to be present at the former lead smelter site or nearby properties (2) identify any populations that may be at risk to exposure to this soil, and (3) determine if soil sampling is warranted at any of these sites or nearby properties.

The following activities were completed as part of the initial screening investigation of each of these former lead smelter sites: (1) verify the former lead smelter address listed in the Eckel study through historical Sanborn fire insurance maps, tax parcel information,

and/or contacting local agencies, (2) determine if the site is listed in EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database, (3) determine through census information and existing maps the number of schools, daycare centers or recreational parks that exist near the former lead smelter site, (4) determine the population residing within a 4-mile radius of the site, (5) conduct a windshield reconnaissance of the site and surrounding area to document the current land use, identify any exposed soil and verify the existence of any schools, daycare centers or parks in the immediate area, and (6) review all information acquired to determine if the collection and analysis of soil samples is warranted at the site or at any nearby property.

This report summarizes the findings of the tasks outlined above for the former lead smelter known as the Metallurgical Products site located at 35th and Moore Street, Philadelphia, Pennsylvania, 19145. Each former smelter property was given a number in Eckel's study. The Eckel study number for this site is 312 (Ref. 1).

2.0 SITE LOCATION

The former Metallurgical Products facility was located at 35th and Moore Street, Philadelphia Pennsylvania, 19145. The geographic coordinates of the former Metallurgical Products facility are 39.9323° north latitude and 75.202470° west longitude on the Philadelphia, Pennsylvania-New Jersey Quadrangle, 7.5 minute series, United States Geological Survey topographic map (see Appendix A, Figure 1). The site is not currently listed in EPA's CERCLIS database (Ref. 4). An aerial photograph of the vicinity of the former lead smelter site has been included in Appendix A, Figure 2. This aerial photograph reveals the exposed soils and any identified areas of potential concern such as schools, daycare centers, or parks located within a half-mile radius of the site.

3.0 SITE OBSERVATIONS

On December 12, 2005, Tetra Tech completed a non-sampling windshield reconnaissance of the Metallurgical Products site and surrounding area. A photographic record of the current site conditions is included in Appendix B. Figure 3, shows the current layout of the site and surrounding area as observed during Tetra Tech's site reconnaissance. The following observations were recorded:

- The exact location of the former lead smelter could not be identified. The area in the immediate vicinity of the probable location of the former lead smelter is predominantly industrial.
- A recreational park that includes a baseball field is located at the southwest intersection corner of 35th and Moore Streets. Philadelphia Gas Works is located just south of the baseball field. East of this intersection are two large industrial properties currently occupied by the Disposal Corporation of America and Buckley Co. Contractors. A Sunoco Refinery tank farm is located to the north of Moore Street.
- The Schuylkill River is approximately one-quarter mile west of the subject property vicinity.
- No schools or daycare centers are located in the immediate vicinity of the subject property area.
- Exposed soil exists on the baseball field at the southwest corner of 35th Street and Moore Street.

4.0 POTENTIAL TARGETS

Potential targets identified that may be exposed to lead-contaminated soils remaining in the vicinity of the former Metallurgical Products site include visitors to the baseball field and any workers that may be employed at or in the nearby vicinity of the site. The population within a 4-mile radius of the site is summarized in the table below (Ref. 5).

Population within a Four-mile Radius of the Site

Distance Ring (miles)	Population (number of persons)
0.0 to 0.25	751
0.25 to 0.5	3,795
0.5 to 1.0	21,975
1.0 to 2.0	175,580
2.0 to 3.0	224,990
3.0 to 4.0	153,326

Source: U.S. Department of Commerce. Landview V Environmental Mapping Software based on the Bureau of Census 2000 Population Data. December 6, 2005.

No schools or daycare centers have been identified in the area directly surrounding the site. Audenried High School, Alcorn Elementary School, and Saint Gabriels School are northeast of the subject vicinity approximately one-quarter to one-half mile of the site. Stinger Park is located one-third mile northeast of the subject vicinity. Lauier Park is located approximately one-half mile east of the subject vicinity. Bartrams Park is located one-half mile west of the subject vicinity, on the opposite side of the Schuylkill River.

5.0 FINDINGS AND RECOMMENDATIONS

The site is located in a predominantly industrial area of Philadelphia, Pennsylvania. The only potential targets identified to elevated levels of lead in soils in the area are visitors to the baseball field that is located on the corner of 35th Street and Moore Street; therefore, to determine if there is a threat to persons using the ball field it is recommended that soil samples be collected from the ball field and analyzed for lead levels.

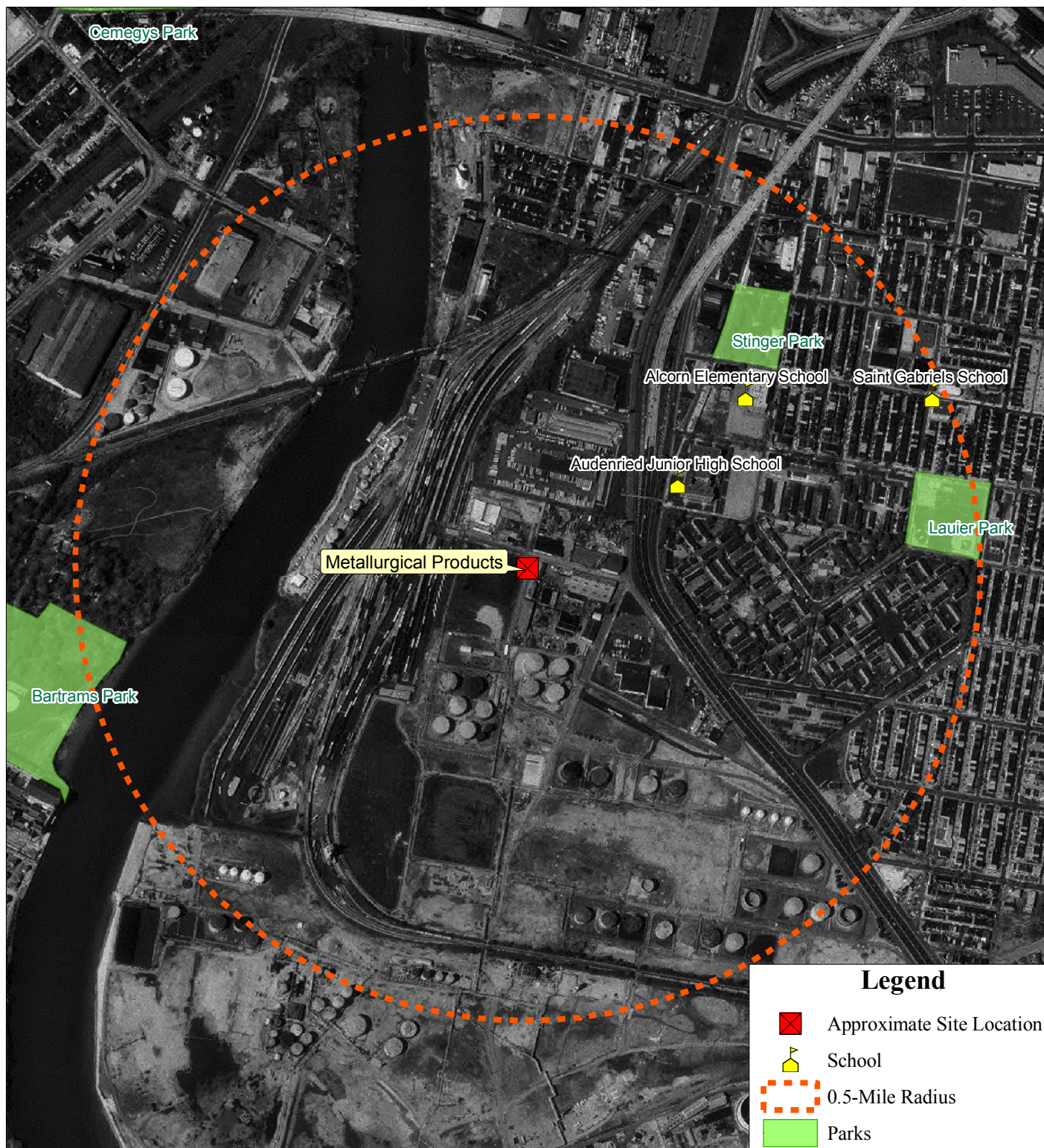
REFERENCES

1. Eckel, W.P., Rabinowitz, M.B., Foster, G.D. American Journal of Public Health. "Discovering Unrecognized Lead-Smelting Sites by Historical Methods". April 2001.
2. Pennsylvania Department of Health. Suspected Former Lead Smelter Sites: A Potential Risk Factor for Childhood Lead Poisoning. August 2004.
3. U.S. Environmental Protection Agency (EPA). Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities. OSWER Directive 9355.4-12. July 14, 1994.
4. U.S. EPA. Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS) database. On-Line Address: <http://cfpub.epa.gov/supercpad/cursites/srchsites.cfm>
5. U.S. Census Bureau. State and County Quick Facts. Accessed On-Line on December 6, 2005. On-Line Address: quickfacts.census.gov/qfd/states/42.html.





Appendix A


Figures





Legend

-  Approximate Site Location
-  School
-  0.5-Mile Radius
-  Parks

0 500 1,000
 Feet
 Scale in Feet

Metallurgical Products
 35th Street and Moore Street
 Philadelphia, Pennsylvania
 Eckel Site No. 312

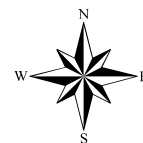
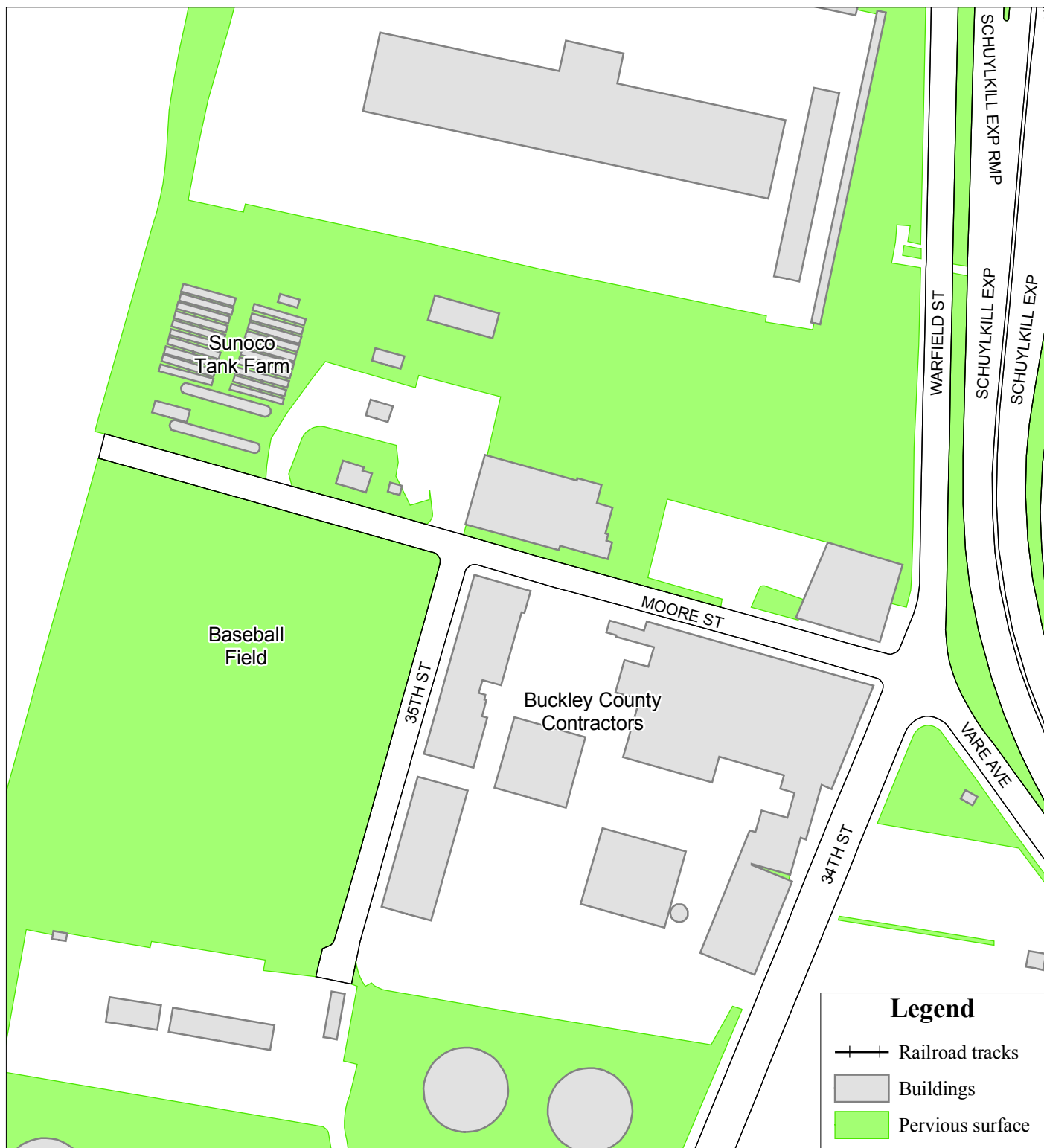


Figure 2
 Aerial Photograph

Source: Modified from Digital Orthophoto (DOQQ) MrSID mosaic for Philadelphia Quadrangle (NAPP III, 1997-2001)





0 100 200
Feet
Scale in Feet

Metallurgical Products
35th Street and Moore Street
Philadelphia, Pennsylvania
Eckel Site No. 312

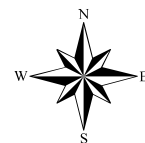


Figure 3
Site Layout Map

Source: Modified from Philadelphia City Planning Commission (PCPC) Department - GIS Division, 2006.



Appendix B
Photographic Documentation



Photographic Documentation

Site Name: Metallurgical Products – Eckel Number 312

Prepared by: Tetra Tech EM Inc.

Location: 35th Street and Moore Street, Philadelphia, Pennsylvania

Photographer: [REDACTED]

Photograph No. 1

Photograph Date:

October 13, 2005

Description: View of baseball field facing south from the Sunoco Oil Refinery security gate.



Photograph No. 2

Photograph Date:

October 13, 2005

Description: View of outfield of the baseball field and an office or warehouse building adjacent to the former Metallurgical Products property.





Photographic Documentation

Site Name: Metallurgical Products – Eckel Number 312

Prepared by: Tetra Tech EM Inc.

Location: 35th Street and Moore Street, Philadelphia, Pennsylvania

Photographer: [REDACTED]

Photograph No. 3

Photograph Date:

October 13, 2005

Description: Sunoco Oil Refinery security gate.



Photograph No. 4

Photograph Date:

October 13, 2005

Description: Empty warehouse located northeast of the former Metallurgical Products property.

